

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-029005**Date Inspected:** 17-Jan-2013**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** William Sherwood**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS Tower**Summary of Items Observed:**

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At the Tower Base, Electro Slag Weld (ESW) 'V' weld joint #W-043 face A, ABF welder Chris Bruce was observed performing the repair welding of the cover pass on previously welded ESW at Y=7610mm due to UT reject. The welder was noted utilizing Shielded Metal Arc Welding (SMAW) with 4mm diameter E7018H4R electrode implementing ABF-WPS-D15-1000 Repair Rev. 3. The welder excavated the defect using carbon air arc gouging followed by grinding the excavation to a bright metal. Prior to the excavation, the welder was noted preheating the repair area and its vicinity to 350°F using Miller Proheat 35 Induction Heating System with the heating blanket placed on the outside. After the excavation, ABF QC Steve Jensen performed the Magnetic Particle Testing (MT) of the excavation with the following dimensions: 145mm long x 40mm wide x 28mm deep with no relevant indications noted. This QA performed the same test (MT) and found same result. This weld repair was performed per Request for Weld Repair (RWR) #201301-027. During the shift, ABF QC Steve Jensen was noted monitoring the welding parameters and workmanship of the repair welding. At the end of the shift, the repair welding mentioned above was still in progress at the end of the shift. Though the repair was incomplete, the welder still performed the Post Weld Heat Treatment (PWHT) of 350°F as required.

At Tower Base Electro Slag Weld (ESW) 'K' weld joint # E-042 face B, ABF personnel was noted grinding the surface of the weld cover due to VT/MT reject at the location Y=2500mm to Y=5450mm. After the completion of the grinding, ABF QC William Sherwood performed the Magnetic Particle Testing (MT) on the ground areas with

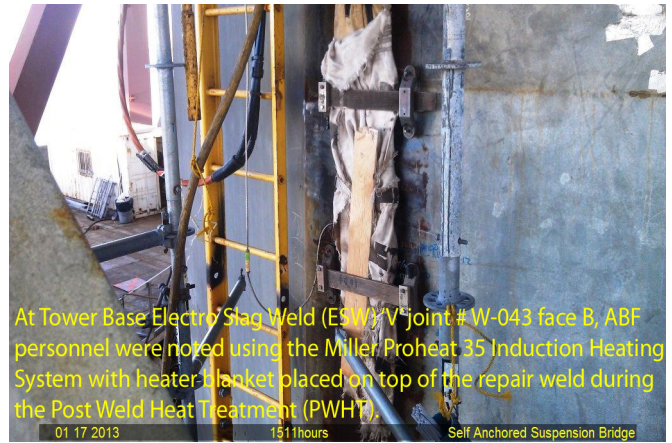
WELDING INSPECTION REPORT

(Continued Page 2 of 3)

no relevant indications noted. This QA performed the same test (MT) and noted same result. The surface depth of the following Y locations were measured and noted;

1. Y=2500-Y=3250mm 1-2mm deep To be repaired/welded without RWR.
2. Y=3250-Y=3750mm <5mm deep To be repaired/welded without RWR.
3. Y=3750-Y=4100mm 10-12mm deep Awaiting for RWR prior repair/welding.
4. Y=4100-Y=4720mm <5mm deep To be repaired/welded without RWR.
5. Y=4720-Y=4900mm 6mm deep Awaiting for RWR prior repair/welding.
6. Y=4900-Y=4970mm 8mm deep Awaiting for RWR prior repair/welding.
7. Y=4970-Y=5160mm 10mm deep Awaiting for RWR prior repair/welding.
8. Y=5160-Y=5450mm 6-7mm deep Awaiting for RWR prior repair/welding.

At Tower Base Electro Slag Weld (ESW) 'V' joint # W-043 face B, the excavation profile of the repair was measured 145mm long x 40mm wide x 28mm deep at location Y=7610mm.



Summary of Conversations:

No significant conversation occurred today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Reyes, Danny

QA Reviewer